

# HUNTER VALLEY VZ JOURNAL

---

HV VZ USERS GROUP  
\* NEW ADDRESS \*

35 TIGHER TERRACE  
TIGHER HILL  
NSW 2297

---

PHONE - 049 611 474



## APOLOGIES . . .

MY SINCEREST APOLOGIES TO ALL VZ JOURNAL READERS FOR THE VERY, VERY LATENESS OF THIS ISSUE. AS MENTIONED IN LAST ISSUE I HAVE A MEDICAL PROBLEM WHICH GOT MUCH WORSE NEAR COMPLETION OF MY NEW HOUSE. IT AFFECTED ALL MY JOINTS AND MADE LIFE UNBEARABLE FOR MANY MONTHS.

I HAD TO BE OUT OF MY LAST ADDRESS BY A CERTAIN DATE AND SO I PUSHED MYSELF AND AM STILL PAYING FOR IT NOW. I HAD MANY RELAPSES SINCE THEN BUT THANKFULLY I'M STARTING TO FEEL NEAR NORMAL. THE NEXT ISSUE SHOULD BE ON TIME AS I'VE LEARNED MY LESSON AND AM TAKING THINGS EASY.

## NEXT/FUTURE ISSUE/S . . .

FINAL PART OF VZ FREQUENCY.

MULTIPLE USR CALL ROUTINE (USED IN VZ FREQUENCY).

MACHINE CODE DIRECTORY ROUTINE (USED BY VZ FREQUENCY).

MINI AMPLIFIER FOR THE VZ.

MANUAL DATA INPUT FOR VZ LOTTO.

JOURNAL INDEX PART II

## FOR SALE - FOR SALE . . .

|   |                                |
|---|--------------------------------|
| 1 OFF VZ 300  | 1 OFF 16 MEMORY EXPANSION      |
| 2 OFF DISK DRIVES                                   | 1 OFF DISK CONTROLLER          |
| 1 OFF PRINTER INTERFACE                             | 1 OFF JOYSTICK INTERFACE       |
| 1 OFF GREEN SCREEN MONITOR                          | 1 OFF 8 BIT PORT (HV VZ J #30) |
| 1 OFF LIGHT PEN                                     | 1 OFF MODEM AND INTERFACE      |
| 1 OFF DR20 TAPE DATA RECORDER                       | ASSORTED GAME CASSETTES        |
| BOX OF ASSORTED DISKS, BOOKS, MAGAZINES AND MANUALS |                                |

\$250.00 ONO. WILL SEPERATE BUT WOULD PREFER TO SELL AS ONE LOT.

ALSO FOR SALE SPARE PARTS INCLUDING:

APPROXIMATELY 6 VZ'S, EXPANSION CASES, MODEMS, JOYSTICKS, MEMORY, CPU CHIPS (SOME NEW), MONITORS (GOING).

BEST OFFER FOR ABOVE . . .

BEN HOBSON PO BOX 255 QUIRINDI 2343 (067) 462 076 AFTER 6.30 PM

## PUBLIC DOMAIN SOFTWARE

IT HAS BEEN SUGGESTED TO ME THAT I ASSEMBLE A NUMBER OF DISKS CONTAINING PUBLISHED PROGRAMS, PUBLIC DOMAIN SOFTWARE, ETC AND OFFER TO READERS AT MINIMAL COST TO COVER EXPENSES. PLEASE LET ME KNOW YOUR IDEAS ON THIS AND WHAT TYPE OF SOFTWARE YOU WOULD LIKE. ED.

## BACK ISSUES . . .

MOST BACK ISSUES ARE IN STOCK AND AVAILABLE AT FOLLOWING PRICES.

|                     |                                  |
|---------------------|----------------------------------|
| CURRENT ISSUE       | - \$3.50 EACH - INCLUDES POSTAGE |
| 1 - 5 ISSUES        | - \$3.00 EACH - INCLUDES POSTAGE |
| 6 OR MORE ISSUES    | - \$2.75 EACH - INCLUDES POSTAGE |
| OUT OF STOCK ISSUES | - \$3.50 EACH - INCLUDES POSTAGE |

# **FRONT COVER**

IT SAYS IT ALL. I HAVE MOVED AGAIN, BUT NOT VERY FAR AND HAVE NO PLANS MOVING AGAIN UNLESS I WIN LOTTO OR SOMETHING SIMILIAR. IT IS VERY NICE HAVING A PLACE OF MY OWN AGAIN AFTER BOARDING FOR A COUPLE YEARS WITH MY BROTHER.

## **HELP - SELL & .ELL**

**PAGE 3**

APOLOGIES, NEXT/FUTURE ISSUES, FOR SALE, PUBLIC DOMAIN SOFTWARE AND BACK ISSUES.

## **LIST UTILITY BY L MILBURN**

**PAGES 4-6**

LIST IS A SMALL ROUTINE WHICH CAN BE CALLED FROM A BASIC PROGRAM AND LISTS A BASIC PROGRAM STORED ON DISK TO THE PRINTER (OR SCREEN AFTER A SMALL MOD) AND THE BASIC PROGRAM WILL KEEP RUNNING AFTER THE CALL.

## **DOS BUGS 2 BY L MILBURN**

**PAGE 6**

THIS TIME LES HAS FOUND A BUG WITH THE DCOPY COMMAND AND SHARES HIS DISCOVERY WITH OTHER VZ USERS.

## **BASIC COMMAND ABBREVIATIONS**

**PAGE 8**

**BY BOB KITCH**

THERE ARE A NUMBER OF UNDOCUMENTED COMMAND ABBREVIATIONS WHICH BOB BRINGS TO OUR ATTENTION AND CAN BE USED BY PROGRAMERS.

## **INVERSE CHARACTER SET**

**PAGES 7-10**

**BY BOB KITCH**

THE SHAPES OF THE VZ INVERSE CHARACTER SET IS HELD IN ROM AND CONTAIN SOME ERRORS. IF YOU STUDY PAGE 10 YOU'LL SEE THEM. THE PROGRAM WILL ALLOW YOU TO A HAVE A LOOK AT YOUROWN ROM AND SEE FOR YOURSELF.

## **BASIC & SOURCE CODE TO**

**PAGES 10-14**

**WP FILE BY D MITCHELL**

THIS PROGRAM WAS NORMALLY AVAILABLE WITH DAVE MITCHELL'S E & F DISK WP PATCH3.3. IT CONVERTS BASIC PROGRAMS AND SOURCE CODE FILES TO DISK WP FILES. IT IS VERY FAST AND VERY EASY TO USE AND VERY USEFUL.

## **VZ NUMBERS FREQUENCY**

**PAGES 14-18**

THIS PROGRAM IS DESIGNED TO KEEP TRACK OF WINNING AND/OR SUPPLEMENTARY NUMBERS IN POOLS AND GO LOTTO. WITH SOME MINOR MODIFICATIONS THIS PROGRAM COULD BE ALTERED TO KEEP TRACK OF OTHER NUMBER FREQUENCIES. OZ LOTTO MODS IN NEXT ISSUE.

## **VZ-EPSON PRINTER PATCH V1.4**

**PAGE 19**

**BY L TAYLOR - PUBLIC TAYLOR**

THE INSTRUCTIONS FOR ABOVE ARE REPRODUCED FOR THOSE WHO HAVE PROGRAM BUT NOT THE INSTRUCTIONS.

## **NEW PUBLIC DOMAIN SOFTWARE**

**PAGE 20**

**USER GROUPS**

**CONTRIBUTIONS**

**SUBSCRIPTIONS**

**DISCLAIMER:** EVERY EFFORT IS MADE TO INSURE THE ACCURACY OF INFORMATION CONTAINED WITHIN BE IT GENERAL, TECHNICAL, PROGRAMMING, ETC. NO RESPONSIBILITY CAN BE ACCEPTED BY HUNTER VALLEY VZ USERS' GROUP OR AUTHOR AS A RESULT OF APPLYING SUCH INFORMATION IN PRACTICE.

```

001 ;*****
002 ;* MACHINE CODE ROUTINE *
003 ;* PRINTS A BASIC PROGRAM *
004 ;*****
005 ;
006 ;NOT RELOCATABLE CODE.
007 ;
008 ;*****
009 ;ROM SUBROUTINES.
010 ;
011 PCHR EQU 032AH
012 PINT EQU 0FAFH
013 FLNE EQU 1B2CH
014 PCR EQU 20FEH
015 IMOD EQU 2828H
016 PMSG EQU 2B75H
017 DTOK EQU 2B7EH
018 PWON EQU 4008H
019 PWOF EQU 400BH
020 LOAD EQU 4041H
021 ;
022 ;*****
023 ;BASIC PROGRAM POINTERS
024 ;
025 DVCE EQU 789CH
026 SBAS EQU 78A4H
027 BPTR EQU 78A7H
028 RTYP EQU 78AFH
029 EBAS EQU 78F9H
030 ARG EQU 7921H
031 ;
032 ;*****
033 ;CONSTANT DEFINITIONS
034 ;
035 VINT EQU 2
036 VSTR EQU 3
037 SDEV EQU 0
038 PDEV EQU 1
039 Ftyp EQU "T"
040 STAK EQU 7700H
041 ;
042 ;*****
043 ;
044 ;CHECK ARG IS A STRING
045 CP VSTR
046 JP NZ,ERR
047 ;CHECK IF IMMEDIATE MODE
048 CALL IMOD
049 ;SAVE DOS VECTOR
050 LD (DOS),IY
051 ;CLEAR FILENAME BUFFER
052 LD DE,(DOS)
053 LD HL,(DOS)
054 INC HL
055 INC DE
056 INC DE
057 LD (HL),32
058 LD BC,7
059 LDIR
060 ;GET STRING ARG (FILENAME)
061 LD HL,(ARG)
062 ;A=STRING LENGTH
063 LD A,(HL)
064 INC HL
065 ;IF STRING LEN=0, RETURN
066 CP 0
067 JR Z,ERR
068 ;ENSURE STRING LEN <= 8
069 CP 9
070 JP M,LP1
071 LD A,8
072 LP1 LD E,(HL)
073 INC HL
074 LD D,(HL)
075 EX DE,HL
076 ;COPY FILENAME TO BUFFER
077 LD DE,(DOS)
078 INC DE
079 LD C,A
080 LD B,0
081 LDIR
082 ;SAVE STACK POINTER
083 LD (STCK),SP
084 ;SET STACK PTR TO FREE MEM
085 LD SP,STAK
086 ;SAVE IMPORTANT BASIC PTRS
087 LD HL,(SBAS)
088 PUSH HL
089 LD HL,(EBAS)
090 PUSH HL
091 LD HL,(BPTR)
092 PUSH HL
093 ;SET FILETYPE TO BASIC TYPE
094 LD (IY+9),FTYP
095 ;LOAD FILE SPECIFIED FROM
096 ;DISK IN CURRENT DRIVE
097 CALL PWON
098 CALL LOAD
099 ;SAVE ERROR CODE.
100 PUSH AF
101 CALL PWOF
102 ;RESTORE THE ERROR CODE
103 POP AF
104 ;WAS THERE A DISK ERROR?
105 CP 0
106 JR NZ,ERR2
107 ;SET THE OUTPUT DEVICE TO
108 ;THE PRINTER
109 LD A,PDEV
110 LD (DVCE),A
111 ;SET THE BASIC INPUT BUFFER
112 ;TO OUR OWN BUFFER
113 LD HL,IBUF
114 LD (BPTR),HL
115 ;SEARCH FOR THE FIRST BASIC
116 ;PROGRAM LINE
117 LD DE,0
118 CALL FLNE
119 ;SAVE FOUND LINE PTR
120 PUSH BC
121 LOOP POP HL
122 ;BC = PTR TO NEXT LINE
123 LD C,(HL)
124 INC HL

```

LIST IS A SMALL ROUTINE WHICH LISTS A BASIC PROGRAM STORED ON DISK TO THE PRINTER (OR SCREEN AFTER A SMALL MOD).

SO WHATS NEW? I HEAR YOU ASK.

WELL, THE BEAUTY OF THIS UTILITY IS THAT IT CAN BE CALLED FROM A BASIC PROGRAM AND DOES NOT RE-ENTER IMMEDIATE MODE AFTER LISTING THE PROGRAM, (I.E. THE CALLING BASIC PROGRAM KEEPS RUNNING).

WHAT'S THE USE?

THE MAIN USE OF LIST IS TO PROVIDE AN EASY WAY TO LIST MANY BASIC PROGRAMS IN A "BATCH LIKE" PROCESS WITHOUT REQUIRING INTERVENTION BY THE USER.

HOW TO USE LIST.

- (1) A CONTROLLING BASIC PROGRAM IS REQUIRED. IT MUST LOAD THE ROUTINE, SET UP THE USR ADDRESS AND PROVIDE THE FILENAMES OF THE PROGRAMS TO LIST.
- (2) THE CONTROLLING BASIC PROGRAM MUST BE RELOCATED SUCH THAT ITS START ADDRESS IS ABOVE THE END ADDRESS OF ALL OF THE BASIC PROGRAMS IT IS LISTING.
- (3) X=USR("FILENAME") IS THE SYNTAX REQUIRED TO LIST A FILE. AFTER THE CALL, X INDICATES WHETHER AN ERROR OCCURRED (NON-ZERO = ERROR).

RELOCATING A BASIC PROGRAM

THE EASIEST WAY TO RELOCATE A PROGRAM IS TO USE THE EXT12 UTILITY. AN ALTERNATIVE IS TO MOVE THE START OF BASIC POINTER AS DESCRIBED IN THE TECHNICAL MANUAL.

RUNNING A RELOCATED BASIC PROGRAM

IF YOU TRY TO RUN A RELOCATED BASIC PROGRAM AND YOU GET A SYNTAX ERROR TRY THE FOLLOWING:

```
SOB=(PEEK(30884)+256*PEEK(30885))-1
POKE SOB,0 OR POKE SOB-65536,0 IF SOB > 32767
```

NOW TYPE RUN

HERE IS AN EXAMPLE OF A CONTROLLING BASIC PROGRAM (NOTE THAT LIST.BIN IS LOCATED AT 29184)

```
10 BLOAD"LIST.BIN"
20 POKE30862,0:POKE30863,114
30 POKE29282,0 'FOR SCREEN LIST
40 X=USR("FILE1")
50 X=USR("FILE2")
60 X=USR("FILE3")
70 X=USR("ETC ")
80 X=USR("ETC ")
```

**LIST SOURCE CODE ON NEXT 2 PAGES**

## 44-7 BASIC COMMAND ABBREVIATIONS BY BOB KITCH

A NUMBER OF ABBREVIATED FORMS OF BASIC COMMANDS WILL RUN ON THE VZ. THESE SHORTENED FORMS ARE NOT FULLY DOCUMENTED IN THE MANUALS ACCOMPANYING THE MACHINES; SO I HAVE SET THEM OUT BELOW. TRY THEM, AS THEY SAVE A LITTLE SPACE ON THE 32 CHARACTER LONG LINE. THEY SHOULD BE USED WITH CAUTION AS THEY CONTRIBUTE LITTLE TO PROGRAM READABILITY.

| FULL COMMAND                  | ABBREVIATED COMMAND     |
|-------------------------------|-------------------------|
| 10 REM A NON-EXECUTABLE LINE  | 10 ' A NON-EXEC....     |
| 20 PRINT"SEE THIS"            | 20 ?"SEE THIS"          |
| 30 SOUND 1,3:SOUND 2,5        | 30 SOUND 1,3;2,5        |
| 40 LET A=23                   | 40 A=23                 |
| 50 IF A=1 THEN GOTO 999       | 50 IF A=1,GOTO 999      |
|                               | ...OR...                |
|                               | 50 IF A=1,999           |
| 60 PRINT"ENTER VALUE":INPUT A | 60 INPUT"ENTER VALUE";A |

TO PUT THE INPUT "?" ANY WHERE ON THE SCREEN USE:

```
70 PRINT@488,:INPUT A
```

MULTIPLE NEXT STATEMENTS ARE NOT REQUIRED IF THEY FOLLOW EACH OTHER IN THE PROGRAM.

### EDITOR'S NOTE:

THE USE OF (') INSTEAD OF REM SAVES TWO CHARACTER SPACES ON THE PROGRAM LINE BUT USES 3 BYTES OF MEMORY INSTEAD OF 1 BYTE.

THE USE OF (?) INSTEAD OF PRINT SAVES CHARACTER SPACES ON THE PROGRAM LINE, BUT ONCE ENTERED THE VZ CONVERTS IT TO THE PRINT STATEMENT. EACH NUMBERED LINE ON THE VZ CONSISTS OF 64 CHARACTER SPACES INCLUDING THE LINE NUMBER.

IT IS POSSIBLE BY USING (?) MANY TIMES ON A LINE TO FORCE THE VZ TO EXCEED THE 64 CHARACTER LIMIT. THE VZ WILL DISPLAY IT, BUT WILL NOT ALLOW EDITING OF THE EXTRA CHARACTERS/LINES AND IF YOU PRESS RETURN ON THE LINE THE EXTRA CHARACTERS/LINES WILL DISAPPEAR.

WHEN RENUMBERING YOUR PROGRAM THE USE OF (') INSTEAD OF REM CAN CORRUPT YOUR PROGRAM AND BRING ON STRANGE RESULTS WHICH COULD BE DIFFICULT TO CORRECT FOR THE NOVICE PROGRAMMER. AS BOB MENTIONED USE THE ABBREVIATED COMMANDS WITH CAUTION.

## DISPLAY INVERSE CHARACTER SET BY BOB KITCH

WHEN INVERSE CHARACTERS ARE SENT TO A DOT MATRIX PRINTER THE PRINTER SHIFTS TO GRAPHICS MODE AND REQUIRES A ROUTINE TO SUPPLY THE APPROPRIATE SHAPES TO THE HEAD. (NORMAL CHARACTERS ARE HELD IN THE PRINTERS ROM). IN THE VZ COMPUTER A TABLE OF SHAPES IS LOCATED AT 3B94H TO 3CD3H (15252 TO 15571 IN ROM).

THERE ARE 64 CHARACTERS, EACH USING 5 BYTES TO DEFINE THEIR GRAPHIC SHAPE. THE SHAPES MAY BE DECODED AND OUTPUT TO THE SCREEN AS IS DONE IN THIS PROGRAM. NOTE THERE ARE ERRORS IN THE ROM. THE 5 BYTES DEFINE A 5 BY 8 DOT MATRIX WHICH IS THE SHAPE OF THE CHARACTER, WHICH INCIDENTLY ARE NOT ORDERED ACCORDING TO THE ASCII CODE.



```

125      LD    B,(HL)
126      INC   HL
127 ;CHECK IF END OF PROGRAM
128      LD    A,B
129      OR    C
130      JR    Z,LEXX
131 ;SAVE PTR TO NEXT LINE
132      PUSH BC
133 ;BC = LINE NUMBER
134      LD    C,(HL)
135      INC   HL
136      LD    B,(HL)
137 ;SAVE LINE NUMBER
138      PUSH BC
139 ;HL = TOKENISED LINE PTR
140      INC   HL
141 ;SAVE LINE PTR. HL=LINE NO
142      EX    (SP),HL
143 ;PRINT THE LINE NUMBER
144      CALL PINT
145 ;OUTPUT A SPACE
146      LD    A,32
147      CALL PCHR
148      POP   HL
149 ;DETOKENISE STRING POINTED
150 ;TO BY HL
151      CALL DTOK
152 ;LIST LINE ON OUTPUT DEVICE
153      LD    HL,IBUF
154      CALL PMSG
155 ;OUTPUT A CR
156      CALL PCR
157      JR    LOOP
158 ;
159 ;EXIT FROM ROUTINE ON ERROR
160 ERR   LD    HL,1
161      JR    LEX1
162 ERR2 EQU $
163 ;
164 ;RESTORE IMPORTANT BASIC
165 ;PROGRAM POINTERS
166      POP   HL
167      LD    (BPTR),HL
168      POP   HL
169      LD    (EBAS),HL
170      POP   HL
171      LD    (SBAS),HL
172      LD    HL,1
173      JR    LEX1
174 ;
175 ;EXIT FROM ROUTINE NO ERROR
176 LEXX EQU $
177 ;
178 ;OUTPUT TWO CR'S
179      CALL PCR
180      CALL PCR
181 ;RESTORE IMPORTANT BASIC
182 ;PROGRAM POINTERS
183      POP   HL
184      LD    (BPTR),HL
185      POP   HL
186      LD    (EBAS),HL
187      POP   HL
188      LD    (SBAS),HL
189 ;RESET OUTPUT DEVICE TO
190 ;THE SCREEN
191      LD    A,SDEV
192      LD    (DVCE),A
193 ;HL=RET VALUE. ZERO=SUCCESS
194      LD    HL,0
195 LEX1 LD    (ARG),HL
196 ;SET RETURN ARG TYPE TO INT
197      LD    A,VINT
198      LD    (RTYP),A
199 ;RESTORE STACK POINTER
200      LD    SP,(STCK)
201      RET
202 ;
203 ;*****
204 ;DATA STORAGE AREA
205 ;
206 IBUF DEFS 100
207 STCK DEFW 0
208 DOS  DEFW 0

```

## DOS BUGS REPORT 2 IN (DSE) DOS V1.2 BY LESLIE MILBURN

I HAVE FOUND YET ANOTHER BUG IN Dos V1.2. THIS TIME IT IS TO DO WITH THE DCOPY COMMAND. IF DCOPYING A SINGLE FILE USING TWO DRIVES AND THE DESTINATION DISK IS WRITE PROTECTED, THE DESTINATION DRIVE IS LEFT SPINNING AND NO ERROR MESSAGE IS DISPLAYED.

IF ANYBODY HAS FOUND ANY OTHER BUGS IN ANY DOS SYSTEM, PLEASE INFORM THE EDITOR WHO CAN PASS THE INFORMATION ON TO OTHER USERS.

**NOTE:** IF WRITING TO EDITOR PLEASE NOTE NEW ADDRESS AND PHONE NUMBER WHICH IS SHOWN ON FRONT COVER.



## 44-9 INVERSE CHARACTER SET CONT.

```
460     COLOR BT%(I%)      : '***SET COLOUR OF BIT.
470     SET(HP%,VP%+I%)    : '***PLOT BIT.
480     NEXT I%
490 :
500 : '***PREPARE FOR NEXT BYTE.
510     HP%=HP%+1          : '***INCREMENT HORIZONTAL POSITION.
520     IF BK%=5 THEN BK%=0 :HP%=HP%+CW%      : '***NEW CHARACTER.
530     NEXT AD%
590     GOTO 590
```

### EDITOR'S COMMENTS:

THE VZ AS SOLD HAS A TANDY PRINTER COMPATIBLE BASIC ROM. FOR THOSE PERSONS WHO HAVE AN EPSON PRINTER COMPATIBLE EPROM THE ABOVE PROGRAM WILL PRINT THE INVERSE CHARACTERS UPSIDE DOWN. TWO MINOR CHANGES ARE REQUIRED TO FIX THE PROBLEM:

|                      |                               |
|----------------------|-------------------------------|
| OLD LINE: 230 VP%=3  | OLD LINE: 470 SET(HP%,VP%+I%) |
| NEW LINE: 230 VP%=11 | NEW LINE: 470 SET(HP%,VP%-I%) |

DISK USERS: ENTER THE FOLLOWING LINES FOR EXTRA FUNCTIONS.

```
590 GOTO 820
600 A$=INKEY$:A$=INKEY$:IF A$="" THEN 600
610 :
620 IF A$="U" THEN 700: ' ;GOES TO HI-RES SCREEN UPDATE
630 IF A$="S" THEN 710: ' ;GOES TO HI-RES SCREEN SAVE
640 IF A$="Q" THEN CLS:END: ' ;ENDS THIS PROGRAM
650 IF A$="^" THEN 800: ' ;GOES TO PROGRAM UPDATE ROUTINE
660 IF A$="&" THEN 810: ' ;GOES TO PROGRAM SAVE ROUTINE
670 GOTO 600
690 :
700 ERA"INV-ROM": ' ;ERASES HI-RES SCREEN FROM DISK
710 BSAVE"INV-ROM",7000,77FF: ' ;SAVES HI-RES SCREEN TO DISK
720 GOTO 820
790 :
800 :ERA"INV.ROM": ' ;ERASES THIS PROGRAM FROM DISK
810 SAVE"INV.ROM": ' ;SAVES THIS PROGRAM TO DISK
820 SOUND 25,1:GOTO 600
```

TAPE USERS: ENTER ONLY THE FOLLOWING LINES AFTER LINE 610.

```
620 IF A$="S" THEN 800: ' ;GOES TO PROGRAM SAVE ROUTINE
630 IF A$="Q" THEN CLS:END: ' ;ENDS THIS PROGRAM
640 GOTO 600
690 :
800 CSAVE"INVERSE ROM": ' ;SAVES THIS PROGRAM TO TAPE
820 SOUND 25,1:GOTO 600
```

ON THE NEXT PAGE YOU'LL SEE TWO HI-RES SCREEN PRINTOUTS PRODUCED BY THIS PROGRAM. THE LEFT ONE IS OF A STANDARD VZ ROM WHILE THE RIGHT ONE IS OF A MODIFIED VZ ROM (EPROM). IF YOU STUDY THEM CAREFULLY YOU'LL NOTE THE ERRORS IN THE LEFT ONE THAT BOB MENTIONED. ANOTHER ADVANTAGE OF THE MODIFIED EPROM IS THAT IT WILL PRINTOUT TO AN EPSON COMPATIBLE PRINTER ALL THE VZ'S INVERSE AND GRAPHIC CHARACTERS.

### MODIFIED VZ ROM (EPROM):

BESIDES ALLOWING LLISTING AND LPRINTING OF ALL INVERSE AND GRAPHIC CHARACTERS THE EPROM ALSO PROVIDES ALL THE EXTENDED BASIC FUNCTIONS HOBBLING IN THE ORIGINAL VZ ROM WHICH MEANS IT IS NO LONGER REQUIRED TO LOAD ANY EXTENDED BASICS.

WHEN INVERSE CHARACTERS ARE SENT TO A DOT MATRIX PRINTER THE PRINTER SHIFTS TO GRAPHICS MODE AND REQUIRES A ROUTINE TO SUPPLY THE APPROPRIATE SHAPES TO THE HEAD. (NORMAL CHARACTERS ARE HELD IN THE PRINTERS ROM). IN THE VZ COMPUTER A TABLE OF SHAPES IS LOCATED AT 3B94H TO 3CD3H (15252 TO 15571 IN ROM).

THERE ARE 64 CHARACTERS, EACH USING 5 BYTES TO DEFINE THEIR GRAPHIC SHAPE. THE SHAPES MAY BE DECODED AND OUTPUT TO THE SCREEN AS IS DONE IN THIS PROGRAM. NOTE THERE ARE ERRORS IN THE ROM. THE 5 BYTES DEFINE A 5 BY 8 DOT MATRIX WHICH IS THE SHAPE OF THE CHARACTER, WHICH INCIDENTLY ARE NOT ORDERED ACCORDING TO THE ASCII CODE.

THE FIRST BYTE DEFINES THE LEFT HAND EDGE OF THE CHARACTER WHICH IS THE FIRST PRINTED DURING A PASS OF THE PRINTER HEAD. IN TANDY PRINTERS THE MSB IS THE LOWERMOST PIN OF THE HEAD AND LSB IS THE UPPERMOST PIN. THE PINS ON EPSON PRINTER HEADS ARE ARRANGED IN THE OPPOSITE SENSE. THIS REQUIRES THAT THE BITS IN EACH BYTE BE REVERSED.

```

010 *****
020 ***          DISPLAY INVERSE CHARACTER SET IN ROM          ***
030 ***          AS USED BY DOT MATRIX PRINTER                ***
040 ***          BY R. B. KITCH 27/9/86                        ***
050 *****
090 :
100 DIM MK%(7) : '***VECTOR OF BIT MASK VALUES - POWERS OF 2
110 DIM BT%(7) : '***VECTOR OF DECODED BITS FROM ROM VALUE.
120 :
130 '***FILL MASK VECTOR WITH POWERS OF 2 FOR DECODING.
140 FOR I%=0 TO 7 :MK%(I%)=2^I% :NEXT I%
150 :
160 '***INITIALIZE PARAMETERS - MAY BE CHANGED TO VARY SCREEN.
170 CC%=4      : '***CHARACTER COLOUR. (1-4)
180 BC%=2      : '***BACKGROUND COLOUR. (1-4)
190 CS%=0      : '***COLOUR SET. (0-1)
200 CW%=3      : '***COLUMN WIDTH BETWEEN CHARACTERS.
210 SP%=16     : '***ROW SPACING FOR CHARACTERS.
220 HS%=0      : '***STARTING HORIZONTAL POSITION ON HI-RES SCREEN.
230 VP%=3      : '***STARTING VERTICAL POSITION ON HI-RES SCREEN.
240 HM%=127    : '***MAXIMUM HORIZONTAL POSITION. (0-127)
250 :
260 '***SET UP MAIN LOOP TO STEP THROUGH ROM FROM 3B94H-3CD3.
270 BK%=0      : '***BYTE COUNTER FOR EACH CHARACTER.
280 HP%=HS%    : '***SET HORIZONTAL POSITION TO START
290 MODE(1) :COLOR,CS% : '***SET HI-RES SCREEN AND COLOR SET.
300 FOR AD%=15252 TO 15571 : '***ROM ADDRESSES FOR SHAPE TABLE.
310   DV%=PEEK(AD%) : '***DECIMAL VALUE IN ROM.
320 :
330 '***DECODE THE INDIVIDUAL BITS OF DV% AND STORE IN BT%().
340 '***THE MASK VALUES IN MK%() ARE "ANDED" WITH THE VALUE.
350 '***THE RESULT STORED IN BT%() IS THE "COLOUR" OF THE BIT.
360   FOR I%= 0 TO 7 : '***PROCEED FROM LSB TO MSB.
370     IF DV% AND MK%(I%) THEN BT%(I%)=BC% ELSE BT%(I%)=CC%
380   NEXT I%
390 :
400 '***CHECK THAT THERE IS ENOUGH ROOM TO PLOT CHARACTER.
410   IF BK%=0 AND HM%-HP%<4 THEN HP%=HS% :VP%=VP%+SP% : '***NEW ROW
420   BK%=BK%+1 : '***INCREMENT BYTE COUNTER.
430 :
440 '***OUTPUT BYTE TO SCREEN.
450   FOR I%=0 TO 7

```

# 44-11 BASIC & SOURCE CONV. CONT.

|     |                          |     |                 |
|-----|--------------------------|-----|-----------------|
| 001 | ;BASIC AND SOURCE CODE   | 063 | DEFW HO+1       |
| 002 | ;TO WORD PROCESSOR FILE. | 064 | DEFW E1+1       |
| 003 | ;BY D.MITCHELL - 07B00H  | 065 | DEFW L2+1       |
| 004 | LD SP,7AFFH              | 066 | DEFW L3+1       |
| 005 | PUSH IY                  | 067 | DEFW L4+1       |
| 006 | LD HL,(78B1H)            | 068 | DEFW L5+1       |
| 007 | LD BC,END-HO             | 069 | DEFW L6+1       |
| 008 | PUSH BC                  | 070 | DEFW A0+1       |
| 009 | XOR A                    | 071 | DEFW L7+1       |
| 010 | SBC HL,BC                | 072 | DEFW L8+1       |
| 011 | LD (78B1H),HL            | 073 | DEFW L9+1       |
| 012 | INC HL                   | 074 | DEFW L10+1      |
| 013 | PUSH HL                  | 075 | DEFW L11+1      |
| 014 | XOR A                    | 076 | DEFW B0+1       |
| 015 | LD BC,33H                | 077 | DEFW L12+1      |
| 016 | SBC HL,BC                | 078 | DEFW L13+1      |
| 017 | LD (78A0H),HL            | 079 | DEFW L14+1      |
| 018 | DEC HL                   | 080 | DEFW L15+1      |
| 019 | LD (78E8H),HL            | 081 | DEFW L16+2      |
| 020 | LD DE,HO                 | 082 | DEFW L17+2      |
| 021 | POP HL                   | 083 | DEFW L18+1      |
| 022 | PUSH HL                  | 084 | DEFW L18A+1     |
| 023 | XOR A                    | 085 | DEFW L19+1      |
| 024 | SBC HL,DE                | 086 | DEFW E2+1       |
| 025 | EX DE,HL                 | 087 | DEFW L20+1      |
| 026 | LD B,33                  | 088 | DEFW L21+1      |
| 027 | LD IX,LT                 | 089 | DEFW L22+1      |
| 028 | RC LD L,(IX+00)          | 090 | DEFW IPUT+1     |
| 029 | LD H,(IX+01)             | 091 | DEFW L23+1      |
| 030 | PUSH BC                  | 092 | DEFW ERR+2      |
| 031 | PUSH HL                  | 093 | DEFW M1+1       |
| 032 | PUSH HL                  | 094 | DEFW M2+1       |
| 033 | POP BC                   | 095 | HO LD HL,MES0   |
| 034 | POP IY                   | 096 | CALL 2B75H      |
| 035 | LD L,(IY+00)             | 097 | L2 LD HL,M1     |
| 036 | LD H,(IY+01)             | 098 | L3 LD (ADD),HL  |
| 037 | ADD HL,DE                | 099 | M1 LD HL,MES1   |
| 038 | LD A,L                   | 100 | CALL 2B75H      |
| 039 | LD (BC),A                | 101 | E1 CALL IPUT    |
| 040 | INC BC                   | 102 | L4 CALL DLY     |
| 041 | LD A,H                   | 103 | CALL 402CH      |
| 042 | LD (BC),A                | 104 | CP 2            |
| 043 | INC IX                   | 105 | JR Z,S2         |
| 044 | INC IX                   | 106 | S1 OR A         |
| 045 | POP BC                   | 107 | JP NZ,400EH     |
| 046 | DJNZ RC                  | 108 | LD A,0DH        |
| 047 | POP DE                   | 109 | JR S1           |
| 048 | LD (7200H),DE            | 110 | S2 LD A,(IY+10) |
| 049 | LD HL,HO                 | 111 | CP "T"          |
| 050 | POP BC                   | 112 | JR Z,S3         |
| 051 | LDIR                     | 113 | CP "S"          |
| 052 | POP IY                   | 114 | JR Z,S3         |
| 053 | L1 LD HL,ERR             | 115 | LD A,0CH        |
| 054 | LD (79ADH),HL            | 116 | JR S1           |
| 055 | LD A,0C3H                | 117 | S3 LD (IY+9),A  |
| 056 | LD (79ACH),A             | 118 | CALL 4041H      |
| 057 | LD HL,7AE9H              | 119 | OR A            |
| 058 | LD (78A4H),HL            | 120 | JP NZ,400EH     |
| 059 | CALL 1B4DH               | 121 | CALL 400BH      |
| 060 | LD HL,(7200H)            | 122 | LD A,(IY+9)     |
| 061 | JP (HL)                  | 123 | CP "T"          |
| 062 | LT DEFW L1+1             | 124 | JR NZ,B0A       |

```

@ABCDEFGHIJKLMNO @ABCDEFGHIJKLMNO
PQRSTUVWXYZ[\]^_` PQRSTUVWXYZ[\]^_`
!"#$%&'()*+,-./ !"#$%&'()*+,-./
0123456789:;<=>? 0123456789:;<=>?

```

## BASIC & SOURCE CODE TO WP FILE CONVERTER BY DAVE MITCHELL

THIS UTILITY WHICH SOME OF YOU MAY KNOW AS BSTWP.F (BASIC AND SOURCE CODE TO WORD PROCESSOR FILE CONVERTER) IS USED IN CONJUNCTION WITH DAVE MITCHELL'S PATCH3.3 (DISK VERSION OF E & F WORD PROCESSOR). IT CAN ALSO BE USED WITH RUSSELL HARRISON'S VERSION OF DISK WORD PROCESSOR (WORDPRO).

AS THE NAME SUGGESTS THIS UTILITY CONVERTS BASIC PROGRAMS AND EDITOR ASSEMBLER ('S' FILE TYPE ONLY) SOURCE CODE FILES INTO WORD PROCESSOR FILES WHICH CAN BE LOADED INTO EITHER DISK WORD PROCESSOR. CONVERTING COULDN'T BE SIMPLER, IT'S JUST A MATTER OF ENTERING THE BASIC OR SOURCE CODE FILENAME AND ONCE LOADED ENTERING THE WP FILENAME. PRESSING RETURN WITHOUT FILENAME WILL PRESENT USER WITH DISK DIRECTORY IN 3 COLUMNS.

CONVERTING IS VERY FAST, DO'NT BLINK OR YOU MAY MISS IT. THE WP FILES ARE SAVED TO DISK WITH A 'W' FILETYPE WITH AN END ADDRESS OF D000H. BOTH BASIC AND SOURCE CODE FILES ARE PADDED OUT TO 5 DIGITS WITH LEADING ZEROES WHICH YOU MAY HAVE COME ACROSS IN THE JOURNAL ON NUMEROUS OCCASIONS.

AS YOU ENTER THE SOURCE CODE SAVE IT EVERY SO OFTEN SO YOU WON'T LOSE ALL YOUR TYPING. SAVE THE SOURCE CODE AS CONV.SRC AND THE OBJECT CODE AS CONVERT.

**WARNING:** YOU SHOULD BE AWARE THAT ANY GRAPHIC CHARACTERS IN YOUR CONVERTED BASIC PROGRAM WILL PRINT OUT AS GARBAGE AND IS A LIMITATION OF THE WORD PROCESSOR.

ANYONE WHO HAS TRIED THE PRINTER FUNCTION OF THEIR EDITOR ASSEMBLER WILL FIND THIS UTILITY VERY HANDY FOR PRINTING OUT SOURCE CODE FILES AS IT CAN TAKE ADVANTAGE OF ALL THE PRINTER FUNCTIONS OF PATCH3.3 OR WORDPRO HAS TO OFFER.

### CONVERT VERSION 3.1A:

BRIAN GREEVE OF WA HAS MODIFIED CONVERT BY ADDING EXTRA FUNCTIONS MAKING IT VERY VERSATILE INDEED. THANKS BRIAN. CONV3.1A WILL CONVERT ALL SOURCE CODE FILETYPES, EG: S, A & W AS WELL AS QUICK WRITE 'F' WORD PROCESSOR FILES. OTHER OPTIONS ARE NUMBER OF DIGITS SELECT, 1-5 AND D000 OR FE00 WP FILE END ADDRESS FOR PATCH3.3 OR WORDPRO.

# 44-13 BASIC & SOURCE CONV. CONT.

|     |      |              |     |      |             |
|-----|------|--------------|-----|------|-------------|
| 249 | PUSH | HL           | 311 | LD   | A,20H       |
| 250 | POP  | BC           | 312 | LD   | (DE),A      |
| 251 | INC  | BC           | 313 | INC  | HL          |
| 252 | LD   | HL,0CFFFH    | 314 | PUSH | IY          |
| 253 | EX   | DE,HL        | 315 | POP  | DE          |
| 254 | POP  | HL           | 316 | INC  | DE          |
| 255 | LDDR |              | 317 | LD   | BC,8        |
| 256 | INC  | DE           | 318 | LDIR |             |
| 257 | LD   | (78A4H),DE   | 319 | RET  |             |
| 258 | LD   | HL,0D000H    | 320 | DIR  | CALL 01C9H  |
| 259 | LD   | (HL),0       | 321 | XOR  | A           |
| 260 | LD   | (78F9H),HL   | 322 | LD   | (IY+11H),A  |
| 261 | L18A | LD HL,M2     | 323 | LD   | (IY+12H),A  |
| 262 | L19  | LD (ADD),HL  | 324 | LD   | (7AAEH),A   |
| 263 | M2   | LD HL,MES2   | 325 | L23  | CALL DLY    |
| 264 | CALL | 2B75H        | 326 | D1   | DI          |
| 265 | E2   | CALL IPUT    | 327 | CALL | 4035H       |
| 266 | LD   | (IY+9),"W"   | 328 | CP   | 11H         |
| 267 | L20  | CALL DLY     | 329 | JR   | Z,D7        |
| 268 | IN   | A,(13H)      | 330 | OR   | A           |
| 269 | BIT  | 7,A          | 331 | JP   | NZ,400EH    |
| 270 | JR   | Z,S4         | 332 | LD   | L,(IY+31H)  |
| 271 | LD   | A,4          | 333 | LD   | H,(IY+32H)  |
| 272 | JP   | 400EH        | 334 | LD   | B,8         |
| 273 | S4   | CALL 4044H   | 335 | D2   | LD A,(HL)   |
| 274 | OR   | A            | 336 | OR   | A           |
| 275 | JP   | NZ,400EH     | 337 | JR   | Z,D7        |
| 276 | CALL | 400BH        | 338 | PUSH | BC          |
| 277 | EI   | EI           | 339 | CP   | 1           |
| 278 | L21  | JP HO        | 340 | JR   | NZ,D3       |
| 279 | BTA  | LD BC,0606H  | 341 | LD   | DE,16       |
| 280 | L22  | LD HL,(BUF1) | 342 | ADD  | HL,DE       |
| 281 | CALL | 132FH        | 343 | JR   | D6          |
| 282 | DEC  | HL           | 344 | D3   | LD B,10     |
| 283 | LD   | (HL),20H     | 345 | EI   |             |
| 284 | INC  | HL           | 346 | D4   | LD A,(HL)   |
| 285 | RET  |              | 347 | INC  | HL          |
| 286 | DLY  | DI           | 348 | CALL | 033AH       |
| 287 | CALL | 4008H        | 349 | DJNZ | D4          |
| 288 | LD   | BC,0032H     | 350 | LD   | A,(7AAEH)   |
| 289 | CALL | 4038H        | 351 | ADD  | A,10        |
| 290 | RET  |              | 352 | AND  | 20H         |
| 291 | BR   | PUSH IY      | 353 | JR   | NZ,D5A      |
| 292 | POP  | HL           | 354 | LD   | A,20H       |
| 293 | DEC  | HL           | 355 | CALL | 033AH       |
| 294 | LD   | (78B1H),HL   | 356 | JR   | D5          |
| 295 | LD   | BC,65485     | 357 | D5A  | LD A,0DH    |
| 296 | ADD  | HL,BC        | 358 | CALL | 033AH       |
| 297 | LD   | (78A0H),HL   | 359 | LD   | A,1BH       |
| 298 | LD   | HL,7AE9H     | 360 | CALL | 033AH       |
| 299 | LD   | (78A4H),HL   | 361 | D5   | LD DE,6     |
| 300 | LD   | A,0C9H       | 362 | ADD  | HL,DE       |
| 301 | LD   | (79ACH),A    | 363 | D6   | POP BC      |
| 302 | CALL | 1B4AH        | 364 | DJNZ | D2          |
| 303 | JP   | 1A19H        | 365 | INC  | (IY+11H)    |
| 304 | IPUT | LD HL,MES3   | 366 | LD   | A,(IY+11H)  |
| 305 | CALL | 2B75H        | 367 | CP   | 0FH         |
| 306 | CALL | 053AH        | 368 | JR   | NZ,D1       |
| 307 | JR   | C,BR         | 369 | D7   | CALL 400BH  |
| 308 | LD   | A,(DE)       | 370 | EI   |             |
| 309 | CP   | 20H          | 371 | POP  | BC          |
| 310 | JR   | Z,DIR        | 372 | ERR  | LD BC,(ADD) |

|     |     |      |            |     |      |      |           |
|-----|-----|------|------------|-----|------|------|-----------|
| 125 |     | LD   | DE,4       | 187 |      | JR   | Z,B1      |
| 126 |     | LD   | HL,(78F9H) | 188 |      | LD   | B,5       |
| 127 |     | ADD  | HL,DE      | 189 | L13  | CALL | C0        |
| 128 | L5  | LD   | (BUF1),HL  | 190 |      | LD   | B,5       |
| 129 | L6  | LD   | (BUF2),HL  | 191 | L14  | CALL | C0        |
| 130 |     | LD   | HL,(78A4H) | 192 |      | LD   | B,12H     |
| 131 | A0  | CALL | EXIT       | 193 | L15  | CALL | C0        |
| 132 |     | LD   | A,(HL)     | 194 |      | JR   | B4        |
| 133 |     | INC  | HL         | 195 | B1   | LD   | A,(HL)    |
| 134 |     | LD   | (7921H),A  | 196 |      | CP   | 0FFH      |
| 135 |     | LD   | A,(HL)     | 197 |      | JR   | Z,B4      |
| 136 |     | INC  | HL         | 198 |      | CP   | 5BH       |
| 137 |     | LD   | (7922H),A  | 199 |      | JR   | NC,B3     |
| 138 |     | PUSH | BC         | 200 |      | ADD  | A,20H     |
| 139 |     | PUSH | HL         | 201 | B2   | LD   | (DE),A    |
| 140 | L7  | CALL | BTA        | 202 |      | INC  | DE        |
| 141 | L8  | LD   | (BUF1),HL  | 203 |      | INC  | HL        |
| 142 |     | LD   | (78A7H),HL | 204 |      | JR   | B1        |
| 143 |     | POP  | HL         | 205 | B3   | RES  | 6,A       |
| 144 |     | CALL | 2B7EH      | 206 |      | JR   | B2        |
| 145 |     | LD   | HL,(78A7H) | 207 | B4   | LD   | A,0DH     |
| 146 | A1  | LD   | A,(HL)     | 208 |      | LD   | (DE),A    |
| 147 |     | OR   | A          | 209 |      | INC  | DE        |
| 148 |     | JR   | Z,A3       | 210 |      | LD   | (DE),A    |
| 149 |     | CP   | 40H        | 211 |      | INC  | DE        |
| 150 |     | JR   | C,A2       | 212 | L16  | LD   | (BUF1),DE |
| 151 |     | CP   | 5BH        | 213 |      | INC  | HL        |
| 152 |     | JR   | NC,A2      | 214 |      | JR   | B0        |
| 153 |     | ADD  | A,20H      | 215 | C0   | LD   | A,(HL)    |
| 154 |     | LD   | (HL),A     | 216 |      | CP   | 60H       |
| 155 | A2  | INC  | HL         | 217 |      | JR   | Z,C2      |
| 156 |     | JR   | A1         | 218 |      | CP   | 0FFH      |
| 157 | A3  | LD   | (HL),0DH   | 219 |      | RET  | Z         |
| 158 |     | INC  | HL         | 220 |      | CP   | 5BH       |
| 159 |     | LD   | (HL),0DH   | 221 |      | JR   | NC,C1     |
| 160 |     | INC  | HL         | 222 |      | ADD  | A,20H     |
| 161 | L9  | LD   | (BUF1),HL  | 223 |      | JR   | C3        |
| 162 |     | LD   | HL,79E8H   | 224 | C1   | RES  | 6,A       |
| 163 |     | LD   | (78A7H),HL | 225 |      | JR   | C3        |
| 164 |     | POP  | HL         | 226 | C2   | LD   | A,20H     |
| 165 |     | JR   | A0         | 227 |      | DEC  | HL        |
| 166 | B0A | LD   | HL,(78F9H) | 228 | C3   | LD   | (DE),A    |
| 167 |     | LD   | (HL),0     | 229 |      | INC  | DE        |
| 168 |     | INC  | HL         | 230 |      | INC  | HL        |
| 169 |     | LD   | (HL),0     | 231 |      | DEC  | B         |
| 170 |     | LD   | HL,8000H   | 232 |      | JR   | NZ,C0     |
| 171 | L10 | LD   | (BUF1),HL  | 233 |      | INC  | HL        |
| 172 | L11 | LD   | (BUF2),HL  | 234 |      | RET  |           |
| 173 |     | LD   | HL,0A280H  | 235 | EXIT | LD   | C,(HL)    |
| 174 | B0  | CALL | EXIT       | 236 |      | INC  | HL        |
| 175 |     | INC  | HL         | 237 |      | LD   | B,(HL)    |
| 176 |     | LD   | (7921H),BC | 238 |      | INC  | HL        |
| 177 |     | PUSH | HL         | 239 |      | LD   | A,B       |
| 178 | L12 | CALL | BTA        | 240 |      | OR   | C         |
| 179 |     | EX   | DE,HL      | 241 |      | RET  | NZ        |
| 180 |     | POP  | HL         | 242 | L17  | LD   | DE,(BUF2) |
| 181 |     | LD   | A,(HL)     | 243 | L18  | LD   | HL,(BUF1) |
| 182 |     | CP   | 7BH        | 244 |      | LD   | (HL),0DH  |
| 183 |     | JR   | Z,B1       | 245 |      | PUSH | HL        |
| 184 |     | CP   | 7AH        | 246 |      | OR   | A         |
| 185 |     | JR   | Z,B1       | 247 |      | SBC  | HL,DE     |
| 186 |     | CP   | 6AH        | 248 |      | JR   | Z,EI      |

## 44-15 VZ FREQUENCY CONTINUED

```

10 GOTO1000
12 ERA"-----":RETURN
14 REN"-----","-----":RETURN
16 OPEN"-----",0
18 IN#"-----",YR,WK,R,L$,P$:RETURN
20 FORI=1TOR
22 IN#"-----",C(I):NEXT
24 CLOSE"-----":RETURN
25 SAVE"-----":RETURN
34 :
36 : "NO DATA CHECK"
38 :
40 FOR O=0 TO 7:POKE AD+O,ASC(MID$(N$+"",O+1,1))
42 NEXT:RETURN
44 :
46 FOR O=0 TO 2:POKE AD+O,ASC(MID$(X$,O+1,1)):NEXT:RETURN
48 :
50 CLS:POKE 30777,1:PRINT" ";
52 IF M>0 THEN RETURN:'32 INVERSE SPACES ^^
54 PRINT@9,FR$:RETURN
58 :
60 PRINT@275,"N":PRINT@258,"ARE YOU SURE "":RETURN
62 :
64 PRINT@487,M$;:RETURN
66 :
68 PRINT@226,"SELECTED DRIVE >";D:RETURN
78 :
80 ND=0:FOR I=1 TO R:IF C(I)>0 THEN ND=1:I=R:' "NO DATA CHECK"
82 NEXT:IF ND=1 THEN RETURN
84 PRINT@393,"NO DATA CHECK":SOUND 5,6:ND=0:RETURN
88 :
90 IF R=44 THEN PL$="LOTTO" ELSE PL$="POOLS"
91 PRINT@481,PL$;:PRINT" YR WK";
92 PRINT@490,USING"##";YR;
93 PRINT@496,USING"##";WK;
94 PRINT@499,USING"% %";L$;
95 PRINT@503,P$;:RETURN
98 :
100 AD=31535:GOSUB 40:'POKE LINE 16 FILENAME
106 AD=31555:GOSUB 40:'POKE LINE 18 FILENAME
108 AD=31600:GOSUB 40:'POKE LINE 22 FILENAME
110 AD=31627:GOSUB 40:'POKE LINE 24 FILENAME
112 AD=31551:GOSUB 46:'POKE LINE 18 IN#/PR#
114 AD=31596:GOSUB 46:'POKE LINE 22 IN#/PR#
116 POKE 31545,X : 'POKE LINE 16 0 OR 1
118 :
120 IF U=2 THEN AD=31483:GOSUB 40:GOSUB 12:'POKE LINE 12 F'NAME
122 GOSUB 16:GOSUB 90:GOSUB 20
124 IF U=0 THEN 500 ELSE 400
148 :
150 M=0:GOSUB 50:GOSUB 90:' "ENTER YEAR 94-99"
152 PRINT@247,YR:PRINT@226,"ENTER YEAR (94-99) ";
154 INPUT YR:IF YR=0 THEN 300
156 IF YR<94 OR YR>99 THEN 152
158 :
160 PRINT@279,WK:PRINT@258,"ENTER WEEK (00-52) "":INPUT WK
162 IF WK=0 THEN 300
164 IF WK>52 THEN 160
168 :
170 PRINT@312,L$:PRINT@290,"ENTER (MON MID SAT) "":INPUT L$
172 IF L$="" THEN 300
174 L$=LEFT$(L$,3):GOTO 300

```



```

373      PUSH BC
374      RET
375 ADD   DEFW 0
376 BUF1 DEFW 0
377 BUF2 DEFW 0
378 MES0 DEFB 1FH
379 * THIS PROGRAM WILL MAKE WO
380 *RD*
381      DEFB 0DH
382 * PROCESSOR FILES FROM*
383 * BASIC AND EDITOR ASSEMBL*
384 *ER SOURCE CODES*
385      DEFB 0DH
386 *      WRITTEN BY D.MITCHELL*
387      DEFB 0DH
388      NOP
389 MES1 DEFB 0DH
390 * ENTER B/S *
391      NOP
392 MES2 DEFB 0DH
393 * ENTER WP. *
394      NOP
395 MES3 EQU $
396 *FILENAME : *
397      NOP
398 END   NOP

```

## VZ NUMBERS FREQUENCY

THIS PROGRAM IS DESIGNED TO KEEP TRACK OF WINNING NUMBERS IN POOLS AND GO LOTTO. THERE IS A CHOICE OF PRIME NUMBERS ONLY OR CAN INCLUDE SUPPLEMENTARY NUMBERS AS WELL. WITH SOME MINOR MODIFICATIONS THIS PROGRAM COULD BE ALTERED TO KEEP TRACK OF OTHER NUMBER FREQUENCIES.

THE LEFT PRINTOUT BELOW SHOWS GO LOTTO FREQUENCY NUMBERS FOR THE YEAR OF 1994 UP TO THURSDAY, WEEK 7 WHILE THE ONE ON THE RIGHT IS FOR THE SAME TIME PERIOD, BUT INCLUDES SUPPLEMENTARY NUMBERS AS WELL.

THERE ARE TWO INPUT CHOICES:

- 1) INSERT - THIS ALLOWS YOU TO INSERT NUMBERS AS THEY ARE DRAWN AND/OR ADD TO EXISTING NUMBERS.
- 2) EDIT - IF YOU HAVE BEEN KEEPING TABS OF NUMBERS USING PENCIL AND PAPER THEN THIS OPTION WILL ALLOW YOU TO ENTER NUMBERS IN THE RANGE FROM 0 TO 9999 MAXIMUM.

ALSO TO THE BEST OF MY KNOWLEDGE THIS IS THE FIRST TIME THAT A 4 BYTE MULTI USR CALL ROUTINE HAS BEEN USED IN A PUBLISHED PROGRAM WHICH WAS DESCRIBED IN ISSUE # 31, PAGE 14. IT SIMPLIFIES THE CALLING OF M/C ROUTINES WHICH ARE:

- 1) VZ SOUND BEEPER.
- 2) M/C CLS (CLEAR PART SCREEN - 14 LINES.)
- 3) M/C DIRECTORY ROUTINE WHICH WILL BE PUBLISHED IN NEXT ISSUE.

| VZ FREQUENCY |   |     |   |     |   |     |   |  |  |  |  |  |  |
|--------------|---|-----|---|-----|---|-----|---|--|--|--|--|--|--|
| 1-           | 2 | 12- | 2 | 20- | 0 | 34- | 1 |  |  |  |  |  |  |
| 2-           | 1 | 13- | 1 | 21- | 0 | 35- | 0 |  |  |  |  |  |  |
| 3-           | 2 | 14- | 1 | 22- | 0 | 36- | 0 |  |  |  |  |  |  |
| 4-           | 2 | 15- | 0 | 23- | 0 | 37- | 0 |  |  |  |  |  |  |
| 5-           | 1 | 16- | 0 | 24- | 0 | 38- | 0 |  |  |  |  |  |  |
| 6-           | 1 | 17- | 0 | 25- | 0 | 39- | 0 |  |  |  |  |  |  |
| 7-           | 0 | 18- | 0 | 26- | 0 | 40- | 0 |  |  |  |  |  |  |
| 8-           | 0 | 19- | 0 | 27- | 0 | 41- | 0 |  |  |  |  |  |  |
| 9-           | 1 | 20- | 4 | 28- | 0 | 42- | 0 |  |  |  |  |  |  |
| 10-          | 1 | 21- | 1 | 29- | 0 | 43- | 0 |  |  |  |  |  |  |
| 11-          | 3 | 22- | 0 | 30- | 0 | 44- | 0 |  |  |  |  |  |  |

PRESS (:) FOR MENU  
LOTTO YR 94 WK 7 MID PRIME

| VZ FREQUENCY |   |     |   |     |   |     |   |  |  |  |  |  |  |
|--------------|---|-----|---|-----|---|-----|---|--|--|--|--|--|--|
| 1-           | 0 | 12- | 2 | 20- | 0 | 34- | 1 |  |  |  |  |  |  |
| 2-           | 1 | 13- | 1 | 21- | 0 | 35- | 0 |  |  |  |  |  |  |
| 3-           | 2 | 14- | 1 | 22- | 0 | 36- | 0 |  |  |  |  |  |  |
| 4-           | 2 | 15- | 0 | 23- | 0 | 37- | 0 |  |  |  |  |  |  |
| 5-           | 1 | 16- | 0 | 24- | 0 | 38- | 0 |  |  |  |  |  |  |
| 6-           | 1 | 17- | 0 | 25- | 0 | 39- | 0 |  |  |  |  |  |  |
| 7-           | 0 | 18- | 0 | 26- | 0 | 40- | 0 |  |  |  |  |  |  |
| 8-           | 0 | 19- | 0 | 27- | 0 | 41- | 0 |  |  |  |  |  |  |
| 9-           | 1 | 20- | 4 | 28- | 0 | 42- | 0 |  |  |  |  |  |  |
| 10-          | 1 | 21- | 1 | 29- | 0 | 43- | 0 |  |  |  |  |  |  |
| 11-          | 3 | 22- | 0 | 30- | 0 | 44- | 0 |  |  |  |  |  |  |

PRESS (:) FOR MENU  
LOTTO YR 94 WK 7 MID PRIME+

# 44-17 VZ FREQUENCY CONTINUED

```

356 IF C$="E" THEN 900
358 IF C$="D" THEN 500
360 :
362 IF C$="P" THEN 550
364 IF C$="C" THEN RUN
366 IF C$="Y" THEN 150
368 :
370 IF C$="Q" THEN 680
372 IF C$=";" THEN 960
374 IF C$=":" THEN 400
378 :
396 GOTO 350
398 :
400 M=0:GOSUB 50:' "DISK MENU
402 :
404 PRINT@073,"L) LOAD DATA"
406 PRINT@105,"S) SAVE DATA"
408 PRINT@137,"U) UPDATE DATA"
410 :
412 PRINT@201,"E) ERASE FILE"
414 PRINT@233,"R) RENAME FILE"
416 PRINT@265,"I) INIT DISK"
418 :
420 PRINT@329,"D) DIRECTORY"
422 PRINT@361,"1) DRIVE 1/2"
424 PRINT@393,":) MAIN MENU "
428 :
430 DRIVE D:PRINT@361,USING"#";DR
442 :
444 GOSUB 90:SOUND 25,1
446 POKE 30777,35
448 :
450 D$=INKEY$:D$=INKEY$:IF D$="" THEN 450 ELSE X=USR(13392)
452 :
454 IF D$="L" THEN U=0:GOTO 650
456 IF D$="S" THEN U=1:GOTO 650
458 IF D$="U" THEN U=2:GOTO 650
459 :
460 IF D$="E" THEN 600
462 IF D$="R" THEN 620
463 :
464 IF D$="D" THEN 850
466 IF D$="I" THEN 780
470 IF D$="1" THEN D=1:DR$="1":GOTO 430
472 IF D$="2" THEN D=2:DR$="2":GOTO 430
474 :
476 IF D$=":" THEN 300
494 :
496 GOTO 450
498 :
500 GOSUB 80:IF ND=0 THEN 326:' "DISPLAY DATA
502 M=0:GOSUB 50:GOSUB 90
508 :
510 E$="###":F$="#### ":PRINT@64,"";
518 :
520 IF R=38 THEN X1=10:Y1=30:ST=10
522 IF R=44 THEN X1=11:Y1=33:ST=11
524 FOR X=1 TO X1:FOR Y=0 TO Y1 STEP ST
526 IF R=38 THEN IF X+Y>38 THEN PRINT:GOTO 534
528 :
530 PRINT USING E$;X+Y;:PRINT"-";
532 PRINT USING F$;C(X+Y);

```

```

198 :
200 M=0:GOSUB 50:GOSUB 90: ' "████████████████████"
202 :
204 IF R=44 THEN PRINT@243,"L" ELSE PRINT@243,"P"
206 PRINT@226,"LOTTO OR POOLS ";:INPUT Y$
208 :
210 IF Y$="L" THEN R=44:P=8:PRINT@481,"██████";:GOTO 216
212 IF Y$="P" THEN R=38:P=7:PRINT@481,"██████";:ELSE 204
214 :
216 PRINT@275,"N":PRINT@258,"PRIME #'S ONLY ";:INPUT P$
218 :
220 IF P$="Y" THEN P$="PRIME ":P=6:GOTO 230
222 IF P$="N" THEN P$="PRIME+":GOTO 230 ELSE 216
224 :
230 X=USR(31348):'CLEAR PART SCREEN
232 L=98:FOR A=1 TO P
234 :
236 IF A<7 THEN PRINT@L,"ENTER WINNING #";A;"-> ";
238 IF A=7 THEN L=322
240 IF A>6 THEN PRINT@L,"SUPPLEMENTARY NUMBER ";
242 :
244 INPUT N(A)
246 IF N(A)=0 THEN A=P:GOTO 300
248 IF A<7 THEN IF N(A)>R THEN 236
250 IF A>6 THEN IF N(A)>R THEN 240
252 T=0:IF A<>1 THEN FOR I=1 TO A-1:T=T-(N(I)=N(A)):NEXT I
254 IF (T) THEN 236
256 L=L+32:NEXT
258 :
260 PRINT@441,"Y":PRINT@418,"ARE NUMBERS CORRECT ";
262 :
264 INPUT Y$:IF Y$="Y" THEN 270
266 IF Y$="N" THEN 232 ELSE 260
268 :
270 FOR I=1 TO P: ' "████████████████████"
272 C(N(I))=C(N(I))+1:NEXT
274 :
276 PRINT@441,"Y":PRINT@418,"ENTER MORE NUMBERS ";:INPUT Y$
278 :
280 IF Y$="Y" THEN 230
282 IF Y$="N" THEN 500 ELSE 276
298 :
300 M=0:GOSUB 50: ' "████████████████████"
302 :
304 PRINT@073,"I) INSERT DATA"
306 PRINT@105,"E) EDIT DATA"
308 PRINT@137,"D) DISPLAY DATA"
310 :
312 PRINT@201,"P) PRINT DATA"
314 PRINT@233,"C) CLEAR DATA"
316 PRINT@265,"Y) ENTER YR/WK"
318 :
320 PRINT@329,"Q) QUIT & PARK"
324 PRINT@361,";) SUB MENU"
326 PRINT@393,":) DISK MENU "
342 :
344 GOSUB 90:SOUND 25,1
346 POKE 30777,35
348 :
350 C$=INKEY$:C$=INKEY$:IF C$="" THEN 350 ELSE X=USR(13392)
352 :
354 IF C$="I" THEN 200

```

# 44-19 VZ-EPSON PRINTER PATCH V1.4

## BY LARRY TAYLOR - PUBLIC DOMAIN

The VZ-EPSON PRINTER PATCH allows EPSON or EPSON compatible printers to LPRINT or LLIST all of the VZ's inverse and graphics characters.

These same characters can also be dumped to the printer from the LO-RES screen, when the COPY command is used. In MODE(1), use of the COPY command will dump the HI-RES screen to the printer. In addition, an extension of the COPY command has been provided. The new command is COPYA. If COPYA is used in MODE(0), a dump of the LO-RES screen will be made without the usual linefeeds, whilst in MODE(1), a larger than normal dump of the HI-RES screen will be printed. To cater to differences in line feeds between printers, both commands may be used in the form COPYn and COPYAn, where n is a value ranging from 4 to 8. Changing n allows selection of a line feed setting appropriate to the printer being used. Should COPY or COPYA not be followed by a line feed value, then a default setting of 6 will be used.

Three additional commands, LTAB(n), PAGE(n) and FEED(n) have also been added. The LTAB(n) command is used to set a left margin for any output to the printer, whether from an LPRINT statement, during LLISTing of a BASIC program or when doing a screen dump. The value n may be in the range 0 to 63, indicating the number of spaces in from the left that printing will occur. A printout of the disk directory at the current LTAB(n) position can be obtained by first setting the output device code to printer, followed by the DIR command. eg. POKE30876,1:DIR

PAGE(n) sets the page length and n may be in the range 0 to 127. FEED(n) sets the number of linefeeds between the end of printed text and the end of the page. It can be in the range from 0 to 127, but unless it is less than the page length, it will be ignored. Setting a valid linefeed value, causes a form feed to occur automatically. If n is set to 0 then the automatic form feed is switched off. LTAB(n), PAGE(n), FEED(n), LLIST, LPRINT and both the COPY commands may be entered either directly from the keyboard, or used from within a program, but will only function correctly whilst the PRINTER PATCH is present.

The utility locates and protects itself according to available memory, allowing BASIC programs to be loaded and worked on normally. When LLISTing a BASIC program, the routine is also able to recognize all of the hidden commands, which may have been entered using an EXTENDED BASIC. Although not dependent on it, the routine can be used with Steve Olney's EXTENDED BASIC already resident in memory and will not interfere with it in any way. To use it in this way, first load the extended BASIC and then the PRINTER PATCH. Once the READY message appears you will have access to both the EXTENDED BASIC and the improved printer commands.

```

534 NEXT Y:NEXT X
536 E$="":F$=""
542 :
544 PRINT@455,M$
546 IF INKEY$=":" THEN 300 ELSE 546
548 :
550 GOSUB 80:IF ND=0 THEN 326:'"PRINT@455
552 M=1:GOSUB 50:PRINT@11,"PRINT@455":GOSUB 90
554 :
556 GOSUB 60:INPUT Y$
558 IF Y$="N" THEN 300
560 IF Y$="Y" THEN 564 ELSE 556
562 :
564 E$="##":F$="***# "
566 LPRINT TAB(10)"VZ ";PL$;" YR ";USING E$;Y;
568 LPRINT " WK ";USING E$;W;:LPRINT " ";USING"% %";L$;
570 LPRINT USING"% %";P$:LPRINT
572 :
574 IF R=38 THEN X1=10:Y1=30:ST=10
576 IF R=44 THEN X1=11:Y1=33:ST=11
578 FOR X=1 TO X1:FOR Y=0 TO Y1 STEP ST
580 IF R=38 THEN IF X+Y>38 THEN 590
584 :
586 LPRINTTAB(10)USING E$;X+Y;:LPRINT"-";
588 LPRINT USING F$;C(X+Y);
590 NEXT Y:LPRINT
594 NEXT X:LPRINT
596 E$="":F$="":GOTO 300
598 :
600 M=1:GOSUB 50:PRINT@10,"PRINT@10";:GOSUB 68:PRINT@258,EF$;
602 :
604 SOUND 30,1:INPUT N$
606 IF N$="" THEN 400
608 IF LEN(N$)>8 THEN 600
610 AD=31483:GOSUB 40:GOSUB 12
612 GOTO 400
618 :
620 M=1:GOSUB 50:PRINT@10,"PRINT@10";:GOSUB 68
622 :
624 PRINT@258,"OLD FILENAME > ";:SOUND 30,1:INPUT N$
626 IF N$="" THEN 400
628 IF LEN(N$)>8 THEN 620
630 AD=31503:GOSUB 40
632 :
634 PRINT@290,"NEW FILENAME > ";:SOUND 30,1:INPUT N$
636 IF N$="" THEN 400
638 IF LEN(N$)>8 THEN 634
640 AD=31514:GOSUB 40
642 GOSUB 14:GOTO 400
648 :
650 IF U>0 THEN GOSUB 80:IF ND=0 THEN 424:'"SAVE=LOAD=UP=DOWN
652 M=1:GOSUB 50
654 IF U=0 THEN PRINT@11,"UP";
656 IF U=1 THEN PRINT@11,"SAVE";
658 IF U=2 THEN PRINT@10,"UP=DOWN";
660 PRINT"UP=DOWN":GOSUB 90:GOSUB 68
662 :
664 PRINT@275,N$:PRINT@258,EF$;
666 INPUT N$:IF N$="" THEN 400
668 IF LEN(N$)>8 THEN 664

```

## DAVE MITCHELL

E & F WP PATCH 3.3  
MENU & FILE COPIER  
EXTENDED DOS V1.3  
MONITOR 6000H  
DISK FILER & CATALOGUER

E & F WP PATCH 3.4  
MENU & FILE COPIER 6000H  
EXTENDED DOS 6000H  
DISK FILE COPIER 6000H

## MARK HARWOOD

MARK 32 DATABASE  
DISK EDITOR ASSEMBLER

MARK 64 DATABASE  
VZ USER NEWSLETTERS - 22 ISSUES

## LARRY TAYLOR

|                                    |                |                       |
|------------------------------------|----------------|-----------------------|
| VZ EPSON PRINTER PATCH 1.4         | ESCAPE RIVER   | (LO/HI-RES ADVENTURE) |
| COPYPRO 4: FILE COPIER/PROTECTOR   | FACTORY        | (EDUCATIONAL GAME)    |
| COPYPRO 5: TWO DRIVE DISK ONLY     | TOWER OF HANOI | (EDUCATIONAL GAME)    |
| DISK COPY 2: SINGLE DRIVE COPIER   | NAME THE TOWNS | (EDUCATIONAL)         |
| FILE SEARCH 2 (DISK/TAPE CONTENTS) | MICROSCOPE     | (EDUCATIONAL)         |
| DISK MENU (MEMORY RESIDENT)        | SNERTLE        | (EDUCATIONAL MATHS)   |

**BRIAN GREEVE :** MACHINE CODE DATA 2

**H.V. VZ U. G. :** HUNTER VALLEY VZ JOURNAL

**DICK SMITH EL :** IT COULD BE SAFELY SAID THAT IT IS PUBLIC DOMAIN ALSO AS FOR A COUPLE YEARS NOW THEY HAVE REFERED TO ME PERSONS WISHING TO AQUIRE VZ SOFTWARE, HARDWARE OR VARIUOS PUBLICATIONS.

**NOTE :** I HAVE MOST OF THE ABOVE PROGRAMS AND THEY CAN BE HAD JUST FOR THE PRICE OF COVERING COSTS LIKE POST, PACKING, DISKS, ETC.

## CONTRIBUTIONS TO THE JOURNAL

IF YOU ARE THINKING OF CONTRIBUTING TO THE JOURNAL THE PREFERED FORMAT IS BASIC LISTINGS, WORD PROCESSOR OR SOURCE CODE FILES ON TAPE OR DISK. FILES FROM ALL EDITOR ASSEMBLERS AND WORD PROCESSORS CAN BE ACCEPTED. THE PREFERED WORD PROCESSORS ARE LESLIE MILBURN QUICK WRITE, RUSSELL HARRISON WORDPRO AND DAVE MITCHELL PATCH 3.3.

## CLUB MEETINGS - ALL WELCOME

MEETINGS WILL BE APPROXIMATELY ONCE A MONTH, USSUALY ON THE FIRST FRIDAY. MEETING DATES WILL BE ADJUSTED TO ACCOMODATE MEMBERS ABILITY TO ATTEND. WHETHER YOU ARE A LOCAL MEMBER, INTRA OR INTER STATE VISITOR PLEASE CHECK WITH JOE LEON FIRST.

## HUNTER VALLEY VZ JOURNAL SUBSCRIPTIONS

SUBSCRIPTION TO - AUST. - 3 ISSUES \$11.00 - 6 ISSUES \$21.00  
H.V.VZ.JOURNAL - N. Z. - 3 ISSUES \$13.00 - 6 ISSUES \$26.00  
PRICES INCLUDE POST & PACKING

FOR MORE INFORMATION ON MEETINGS AND SUBS CONTACT:  
JOE LEON 35 TIGHES Tce TIGHES HILL 2297 (049) 611 474 AUSTRALIA

**NOTE :** WHEN WRITING TO H.V.VZ. USERS' GROUP FOR INFORMATION PLEASE ENCLOSE A S.S.A.E. OR NZ 2 INT. REPLY COUPONS.

